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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7055	7590	05/05/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			WANG, TED M	
			ART UNIT	PAPER NUMBER
			2634	6

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,095

Applicant(s)

ETO, YUZO

Examiner

Ted M Wang

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10 are pending in the application.

Drawings

2. The drawings are objected to because in Fig.6 the notation "CR" and "RT3" should be exchanged. That is, the RT3 should be connected to elements 509-511 and RT3 should only be connected to element 511. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 5, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by McDonough (US6,452,959).

- In regard claim 1, McDonough discloses an apparatus for generating data sequences for use in communications with one spreading code generator (Fig.12 element 1202, Fig.15A, column 13 line 54-column 14 line 9, and column 14 line 51-column 15 line 55); a storage circuit capable of storing spreading codes generated from said one spreading code generator (Fig.15A elements 1502, column 13 line 54-column 14 line 9, and column 14 line 51-column 15 line 55); a searcher that acquires synchronization of a CDMA signal received through multi-paths and outputs synchronization acquisition information including reference timing information necessary to specify a relative positional relationship between paths and delay time information on delays relative to the reference timing (Fig.12 element 1206, Fig.16, and column 13 line 54-column 14 line 9, and column 16 line 64-column 17 line 11); a plurality of correlators provided according to said paths that despread said CDMA signal at timings corresponding to the respective paths of said multi-paths (Fig.16 element 1604, and column 16 line 64-column 17 line 11); and a timing control circuit that controls the timing of supplying said spreading codes stored in said storage circuit to said plurality of correlators based on said synchronization acquisition

information output from said searcher (Fig.12 element 1204, and Fig.13 and 14, and column 14 lines 10-50).

- In regard claim 5, all limitation can further be taught in column 7 lines 50-61.
- In regard claim 10, which is a method claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonough (US6,452,959) in view of Keskitalo (US5,936,999).

- In regard claim 2, McDonough discloses all of the limitation as described in the above paragraph and at least one selector provided between said shift register and said plurality of correlators that selects one of spreading codes with different delays output in parallel from the respective taps of said shift register based on said synchronization acquisition information output from said searcher, and supplies the selected spreading code to one of said plurality of correlators (Fig.15B-15D, and column 15 line 56 – column 16 line 63) except specifically

teaching that a shift register that temporarily stores spreading codes generated from said one spreading code generator and outputs said spreading codes with different delays in parallel from respective taps.

Keskitalo cited by the applicant discloses a receiver for generating spreading codes in a receiver with a shift register that temporarily stores spreading codes generated from said one spreading code generator and outputs said spreading codes with different delays in parallel from respective taps (Fig.6 element 52, and Fig.7, and column line 35 – column 7 line 27, and column 8 lines 22-55) in order to realize the use of long codes especially in a rake receiver in such a way that the generation of codes and the timing between different receiver blocks can be controlled.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McDonough's data sequences generating apparatus in view of Keskitalo's disclosure in order to realize the use of long codes especially in a rake receiver in such a way that the generation of codes and the timing between different receiver blocks can be controlled.

- In regard claim 6, all limitation can further be taught by McDonough in column 7 lines 50-61.
- In regard claim 9, which is a method claim related to claim 2, all limitation is contained in claim 2. The explanation of all the limitation is already addressed in the above paragraph.

7. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonough (US6,452,959) in view of Mizuguchi et al. (US6,373,881).

- In regard claim 4, McDonough discloses all of the limitation as described in the above paragraph except specifically teaching that a write access control circuit and a read access control circuit are included in the apparatus.

Mizuguchi et al. discloses a CDMA receiver using sampled chip sequence for precision synchronization with received data sequence with a write access control circuit and a read access control circuit (Fig.1 elements 6 and 7, Fig.2 and 4 elements 24-26, column 3 lines 29 – column 4 line 62) in order to provide a detection the synchronization between a spread data sequence and a desreading chip sequence.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McDonough's data sequences generating apparatus in view of Mizuguchi's disclosure in order to provide a detection of the synchronization between a spread data sequence and a desreading chip sequence.

- In regard claim 8, all limitation can further be taught by McDonough in column 7 lines 50-61.

Allowable Subject Matter

8. Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Reference US6,414,984 and US5,940,432 are cited because they are put pertinent to the spread spectrum radio communication device utilizing rake reception scheme. However, none of references teach detailed connection as recited in claim.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M Wang whose telephone number is (703) 305-0373. The examiner can normally be reached on 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Ted M Wang
Examiner
Art Unit 2634

Ted M. Wang


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